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In paragraph 4 of the Office Action, the Examiner states that Adams et al. discloses compositions of modified carbon products, wherein a modified carbon product is functionalized with an organic group that is preferably an ionic group, an ionizable group, or a mixture thereof, and is dispersed and associates with an anionic amphiphilic ion such as sodium bis-(2-ethylhexyl)sulfosuccinate and a homo-or copolymer of acrylic acid or methacrylic acid or salts thereof (wherein the use of ammonium salts is common) in the most preferred of mediums, water. The Examiner further states that the modified carbon product composition is incorporated into various formulations such as inks and coatings, and, in particular, non-aqueous coating compositions including acrylic, urethane, and epoxy resins and solvents such as aromatic hydrocarbons.

The Examiner notes that Adams et al. does not exemplify or explicitly disclose the use of two anionic amphiphilic ions. However, the Examiner states that it is considered to have been well within the capabilities of one of ordinary skill in the art to use two ingredients which are known to impart the same effect. Furthermore, the Examiner states that Applicant's allegation of unexpected results are acknowledged, but the examples do not support unexpected results since they do not provide a proper side-by-side comparison because a) it is not shown how exactly the pigment of the inventive examples differ from the comparative examples, b) it is not made clear if the comparative pigments were subjected to a dispersant, and, if so, what kind, and c) it is not clear if the improvement is properties, with respect to Mc value, are statistically significant (313 for Example 4 versus 307 of Comparative Example 7).

Applicant respectfully disagrees. Regarding claims 21 and 24-29, claim 1 recites a pigment composition comprising at least one pigment and at least one dispersant composition. The pigment is a modified carbon product comprising a carbon product having attached at least one organic group which comprises at least one ionic group, at least one ionizable group, or a mixture thereof. The dispersant composition comprises at least one anionic surfactant and at least one polymer comprising at least one salt of a carboxylic acid group. Thus, the pigment composition of claim 21 comprises two components - a modified carbon product and a combination of two types of dispersants.

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By comparison, Adams et al. relates to a composition comprising an amphiphilic ion and a modified carbon product comprising carbon having attached at least one organic group. The carbon product has a charge opposite to the amphiphilic ion (see column 1, lines 59-63). The amphiphilic ion can be a cationic or anionic amphiphilic ion (see column 1, lines 66-67), and a variety of different types of ions are described (see column 2, line 1 to column 4, line 21). If the modified carbon product is anionic, the amphiphilic compound will be cationic, and if the modified carbon product is cationic, then the amphiphilic compound will be anionic (see column 6, line 67 to column 7, line 3). Thus, the composition of Adams et al. is a modified carbon product comprising an ionic group having attached at least one amphiphilic ion, and several different methods are disclosed for preparing such a product (see column 7, lines 25-50).

Applicant believes that the composition of Adams et al. is not the pigment composition of present claim 21. In particular, there is no disclosure in Adams et al. that the composition comprises a dispersant composition, especially not the combination of an anionic surfactant and at least one polymer comprising at least one salt of a carboxylic acid group recited in present claim 21. Furthermore, there is no suggestion or teaching in Adams et al. that any dispersant, or specific combinations of dispersants, could or should be used in the disclosed composition. In fact, Adams et al. specifically states that the compositions can be readily dispersed into various types of non-aqueous solvents (see column 7, lines 14-24). Thus, there is no motivation for one skilled in the art to add dispersants to the composition of Adams et al. and, in particular, the specific combination of dispersants recited in present claim 21.

Therefore, since there is no disclosure, teaching, or suggestion in Adams et al. of a composition comprising a dispersant composition which comprises at least one anionic surfactant and at least one polymer comprising at least one salt of a carboxylic acid group, and no motivation to use dispersants, including this specific combination of dispersants in the composition of Adams et al., Applicant therefore believes claim 21 is patentable over this reference. In addition, claims 24-29, which depend directly or indirectly from claim 21, recite

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further embodiments of the present invention, and, for at least the reasons discussed above, are also patentable over Adams et al.

Regarding claims 30-34, 37-40, and 42 claims 30 and 42 recite a non-aqueous coating composition comprising a) a non-aqueous vehicle comprising a resin and a non-aqueous solvent, b) at least one pigment, and c) at least one dispersant composition comprising i) at least one anionic surfactant and ii) at least one polymer comprising at least one salt of a carboxylic acid group. The pigment is a modified carbon product comprising a carbon product having attached at least one organic group, wherein the organic group comprises at least one ionic group, at least one ionizable group, or a mixture thereof. For claim 42, the non-aqueous solvent comprises 0-20% water.

While the compositions of Adams et al. are disclosed to be useful in non-aqueous coating compositions (see column 8, lines 22-57), as discussed in more detail above, these compositions are not those of the present invention since there is no disclosure, teaching, or suggestion of the use of a dispersant composition, particularly one comprising the combination of components recited in present claims 30 and 42. Furthermore, there is no disclosure, teaching, or suggestion that such a combination of components could or should be used in a non-aqueous coating composition, particularly one comprising a modified carbon product, as recited in present claim 30 and 42.

Applicant therefore believes that the non-aqueous coating composition of claims 30 and 42 are patentable over Adams et al. In addition, claims 31-34 and 37-40, which depend directly from claim 30, recite further embodiments of the present invention, and, for at least the reasons discussed above, are also patentable over this reference.

Regarding claims 41 and 43, claim 41 recites a non-aqueous coating composition comprising a non-aqueous vehicle comprising a resin and a non-aqueous solvent and a pigment composition. The pigment composition comprises a pigment and at least one dispersant composition. The pigment is a modified carbon product comprising a carbon product having attached at least one organic group which comprises at least one ionic group, at least one ionizable group, or a mixture thereof. The dispersant composition comprises at least one

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anionic surfactant and at least one polymer comprising at least one salt of a carboxylic acid group. For claim 43, the non-aqueous solvent comprises 0-20% water. Thus, the non-aqueous coating compositions of claims 41 and 43 comprise the pigment composition of claim 21. Since Applicant believes the pigment composition of claim 21 is patentable over Adams et al, as discussed in more detail above, Applicant further believes that non-aqueous coating composition comprising this pigment composition are therefore also patentable over this reference.

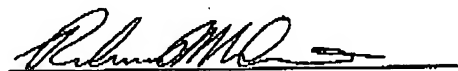
Applicant therefore believes that claims 21, 24-34, and 37-43 are patentable over Adams et al. and respectfully requests that this rejection be withdrawn.

Conclusion

In view of the foregoing remarks, Applicant believes that this application is in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would further expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully submitted,

By:



Robert M. Amici
Reg. No. 52,554
CABOT CORPORATION
Law Department
157 Concord Road
Billerica, MA 01821-7001
978-670-6191

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